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DATE: Sunday, January 25, 2004

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<input type="checkbox"/>	L13	L12 and (l1 or l2 or l3 or l4) not (l6 or l7)	12
<input type="checkbox"/>	L12	l5.ti,ab,clm.	172
<input type="checkbox"/>	L11	L10 same (l1 or l2 or l3 or l4)	23
<input type="checkbox"/>	L10	clostrid\$	4792
<input type="checkbox"/>	L9	l5 same l4	7
<input type="checkbox"/>	L8	l5 same l3	5
<input type="checkbox"/>	L7	l5 same l2	7
<input type="checkbox"/>	L6	L5 same l1	22
<input type="checkbox"/>	L5	botulin\$6 or botox	1187
<input type="checkbox"/>	L4	hypocalcem\$5 or hypercalcem\$5	1660
<input type="checkbox"/>	L3	hyperthyroid\$5 or hypothyroid\$	1536
<input type="checkbox"/>	L2	calcitonin	3536
<input type="checkbox"/>	L1	thyroid or thyroxin	9718

END OF SEARCH HISTORY



Entry of Bontoxilysin (EC-Number 3.4.24.69)

[Any question? -> Use the BRENDA Discussion groups](#)

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Mark a special word or phrase in this record:

All organism
Clostridium barati
Clostridium botulinum
Clostridium butyricum
Clostridium sp.

Select one or more organism in this record:

EC NUMBER COMMENTARY

3.4.24.69

RECOMMENDED NAME GeneOntology No.

Bontoxilysin [GO:0000000](#)

SYSTEMATIC NAME

No entries in this field

SYNONYMS

BoNT

BoNT/B

BoNT/C1

BoNT/D

BoNT/E

BoNT/F

BoNT/G

Bontoxilysin C1

Botulinum neurotoxin

More

ORGANISM COMMENTARY LITERATURE

SYNONYMS	ORGANISM COMMENTARY	LITERATURE
BoNT	-	-
BoNT/B	SwissProt	-
BoNT/C1	SwissProt	-
BoNT/D	SwissProt	-
BoNT/E	SwissProt	-
BoNT/F	SwissProt	-
BoNT/G	SwissProt	-
Bontoxilysin C1	SwissProt	-
Botulinum neurotoxin	-	-
More	cf. EC 3.4.24.68	-

CAS REGISTRY NUMBER COMMENTARY

107231-12-9

REACTION

Protein + H₂O =
hydrolyzed protein



COMMENTARY

Clostridium botulinum: mechanism <4>; Clostridium botulinum,
Clostridium barati, Clostridium butyricum: structure/function relationship
<5>

REACTION TYPE

hydrolysis of peptide bond

ORGANISM COMMENTARY LITERATURE

ORGANISM

Clostridium
barati

COMMENTARY









-

LITERATURE

5

strains 62A (serotype A) or Beluga (serotype E) <10>; type G strain

Enzyme Nomenclature
EC number
Recommended Name
Systematic Name
Synonyms
CAS Registry Number
Reaction
Reaction Type
Enzyme-Ligand Interactions
Substrate/Product
Natural Substrate
Cofactor
Metals/Ions
Inhibitors
Activating Compound
Functional Parameters
KM Value [mM]
Ki Value [mM]
Turnover Number
Specific Activity
pH Optimum
pH Range
Temperature Optimum
Temperature Range
Organism related
Information
Source Tissue
Localization
Organism
Enzyme Structure
AA Sequence
PDB
Molecular Weight
Subunits
Posttranslational
Modification
Crystallization
Molecular Properties
pH Stability
Temperature Stability
General Stability
Organic Solvent Stability
Oxidation Stability
Storage Stability
Purification
Cloned
Engineering
Renatured
Application
Bibliography/Links/Disease
Disease
References
Links

SUBSTRATE	PRODUCT	REACTION DIAGRAM	ORGANISM	Substrate r:=reversible ir:=irreversible	LITERATURE/ Substrate	COMMENTARY/ Product	LITERATURE/ Product
				<p>catalytic activity requires reduction of the single interchain disulfide bond of the neurotoxin <4,15>; activating protease activity is localized on light or L-chain of neurotoxin <4>; the clostridial neurotoxins differ from other proteases in the recognition of the tertiary structure of the target rather than the sequence of the peptide bond to be cleaved <15>; neuromuscular activity tested by intravenous injection into Balb/c mice <1>; no hydrolysis of short peptides spanning the respective cleavage sites of the target proteins <5,6>; synaptotagmin, synaptophysin <15></p>			
More	?		Clostridium botulinum		<u>1</u> , <u>4</u> , <u>5</u> , <u>6</u> , <u>15</u>	-	-
More	?		Clostridium barati	no hydrolysis of short peptides spanning the respective cleavage sites of the target proteins <5>	<u>5</u>	-	-
More	?		Clostridium butyricum	no hydrolysis of short peptides spanning the respective cleavage sites of the target proteins <5>	<u>5</u>	-	-
More	?		Clostridium sp.	the botulinum neurotoxins are divided into two groups: the A-E type and the B-D-F- tetanus toxin type <13>; no hydrolysis of short peptides spanning the respective cleavage sites of the target proteins <6>; N- ethylmaleimide sensitive factor (i.e. NSF), alpha/beta-SNAP or gamma-SNAP <13>	<u>6</u> , <u>13</u>	-	-
Proteins of neuroexocytosis apparatus + H2O	?		Clostridium botulinum	-	<u>2</u> , <u>3</u> , <u>5</u> , <u>6</u>	-	-
Proteins of neuroexocytosis apparatus + H2O	?		Clostridium barati	-	<u>5</u>	-	-
Proteins of neuroexocytosis apparatus + H2O	?		Clostridium butyricum	-	<u>5</u>	-	-
Proteins of neuroexocytosis apparatus + H2O	?		Clostridium sp.	-	<u>6</u>	-	-
recombinant glutathione S- ethyltransferase	Hydrolyzed recombinant glutathione S-		Clostridium	-	<u>15</u>	2 proteolytic fragments, MW	<u>15</u>